

**DPSAFT School Bus Inspection**

**Procedures, Repair Criteria, & Out Of Service Criteria**

**Inside of School Bus**

<b>A. INSIDE</b> <b>1. Stepwell/Grab Rails</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>a. Stepwell</b> 1) Check specification and condition of stepwell and tread.	Step tread is not secure or sealed at inside edge where it meets next step.  Stepwell tread ribbing is worn smooth less than four (4) inches in width when measured one inch (1") or more from the edge.	Step tread is not secure or sealed elsewhere on step. Any tripping hazard.  Stepwell tread ribbing is worn smooth more than four (4) inches in width when measured one inch (1") or more from the edge.  Sheet metal in stepwell is rusted through, has holes or structure has weakened and step(s) flex when weight is applied.
<b>b. Grab Rail(s)</b> 1) Check for presence and secure mounting of entrance grab rail(s).	Mounting hardware is loose.	Handrail and/or any hardware is missing, damaged or has unauthorized modification.

<b>A. INSIDE</b> <b>2. Emergency Equipment</b>		
<b>Inspection Procedures:</b>	<b>Repair if:</b>	<b>Out of Service if:</b>
<b>a. Fire Extinguisher:</b> <b>Check for presence of 2.5lbs fire extinguishers and the following:</b> 1) Check Manufacturer's Label	Current inspection tag not affixed  Labeling is not legible to determine size and type	Less than two (2) fire extinguishers on bus
2) Rating: check for proper U.L. (Underwriters Laboratory) rating.		1984 and Later – Two 5.0 Lb. Fire Extinguisher.
3) Pressure: check gauge		Pressure above or below green zone.
4) Mounting: check for accessibility and secure mounting.	Bracket mount to panel is loose.	Fire extinguisher not accessible to driver or not secured in mounting bracket. 2 <sup>nd</sup> Fire Ext. mounted in rear of bus.
5) Nozzle (If applicable), check for loose, obstructed or damaged parts.		Nozzle or hose loose, missing, obstructed or excessive damage to any parts of extinguisher.
6) Safety Pin: check for presence of safety pin and tamper proof seal.	Seal is broken. Safety pin is missing. Tamper proof seal not of approved type. (ie. material cannot be broken easily)	
<b>b. First Aid Kit</b> 1) Check box and condition	Not labeled Not present. Box not moisture and dust proof, won't seal, won't stay latched or contents inaccessible due to condition of box.  <b>(Continued on Next Page)</b>	

<b>A. INSIDE</b> <b>2. Emergency Equipment</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>b. First Aid Kit: (continued)</b> 2) Check for presence of tamper proof seal.	Seal broken, inspect contents, replace.	
3) Mounting: Check accessibility and mounting of kit. Should be placed in the driver's area and easily accessible.	Loose mounting or loose bracket. Not mounted or inaccessible.	
4) Contents: If seal is broken, check that all contents are intact and sterile (for content list, see Chart 1).	Band-aids are missing or incomplete. Contents are not individually sealed or sterile. Contents not of proper type or incomplete (except band-aids).	
<b>c. Body Fluid Cleanup Kit (After May of 2004)</b> 1) Check kit and condition	Not labeled Body Fluid Clean Up kit not present. Container not moisture and dust proof, won't seal, won't stay latched or contents inaccessible.	
2) Check for presence of tamper proof seal.	Seal broken, inspect contents. Tamper proof seal not of approved type (i.e. material cannot be broken easily).	
3) Check accessibility - Should be mounted in the driver's area and easily accessible.	Loose mounting or bracket. Not easily accessible to driver/not secured.	
4) Contents: If seal is broken, Check that all contents are intact and sterile (for contents list, see Chart 2).	Contents not of proper type, incomplete, or missing.	
(Continued on Next Page)		

<b>A. INSIDE</b> <b>2. Emergency Equipment (continued)</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>d. Reflectors</b> (After 1994) 1) Check for proper type and condition of emergency roadside reflectors.	Bus manufactured after 1994 is not equipped with self-standing, triangular, 17" tall reflectors. Any of the reflectors are broken, deformed or unusable.	
2) Check quantity: three (3) required.	Fewer than three (3) reflectors are present.	
3) Check accessibility, mounting and condition of box. Must be securely mounted in driver's area.	Storage box broken or won't remain latched. Box is not accessible or not securely mounted forward of passenger compartment.	
4) Check for presence of tamper proof seal on Fire Extinguishers.	Seal broken, inspect contents.	
<b>e. Webbing Cutter on bus equipped with lifts.</b>	Replace if webbing cutter is missing.	

<b>A. INSIDE</b> <b>3. Insurance Card</b>		
<b>Inspection Procedures:</b>	<b>Repair if:</b>	<b>Out of Service if:</b>
<b>a. Insurance Card</b> 1) Check for presence of insurance card in a mounted transparent holder.	Insurance Card is not on the bus, is invalid, not legible or holder missing.	
<b>A. INSIDE</b> <b>4. Shifter, Transmission</b>		
<b>a. Shifter-Automatic Transmission</b> 1) Check that shifter operates easily.  1b) Touch-Pad operation	Does not shift easily into all gears.	Will not shift into all gear positions.
2) Correctly indicates the gear that the transmission is in.  2b) LED correctly indicates the gear that the transmission is in.	Slightly misaligned, but indicates correct gear.  Some of LED's are out but can still determine which gear its in.	Indicates the wrong gear.  LED's are out and/or can't tell which gear the transmission is in.
3) Has a functional detent mechanism with a knob or handle on end of shift lever.  3b) Check Markings on touch-pad.	Loose knob or handle.	Detent is non-functional. Knob or handle is missing from end of shifter lever.  Buttons on touch-pad unreadable.
<b>b. Shifter-Manual Transmission</b> 1) Check that shifter operates easily.	Does not shift easily into all gears.	Will not shift into all gears. Hangs between gears.
2) Condition of lever and knob.	Bent lever or knob cracked. Loose knob. Pattern worn off knob (floor shift only).	Lever not securely attached. Knob missing or indicates wrong pattern.
<b>c. Neutral Safety Switch</b> 1) Check to determine if has a functional neutral safety switch that will allow the starter to operate only in park or neutral.		The starter will engage in any gear other than park or neutral.

**A. INSIDE**  
**6. Engine Controls**

Inspection Procedures:	Repair if:	Out of Service if:
<b>a. Ignition Switch:</b> 1) Check that switch only operates by key.	Key sticks in switch. Switch operates without key.	
2) Should be mounted securely in OEM location.	Loose	Not mounted in OEM location.
3) Should operate freely in each function (i.e., start, run, off, and accessory position).	Engine will not crank or start. Switch sticks in any position. Doesn't function properly in start, run, off, or accessory position or is intermittent in any position.	
<b>b. Accelerator</b> 1) Check that accelerator pedal, control design, condition, and mounting securement are OEM.	Pedal cover (as originally equipped) is worn through or smooth in any area.	Pedal and assembly not mounted securely. Pedal, control design, and mounting not OEM.
2) Inspect pedal assembly and linkage for loose or missing hardware.		Loose or missing hardware.
3) Check for smooth operation of pedal assembly and linkage in the accelerating and coast position.		Accelerator control and linkage sticks or doesn't operate freely.
4) Inspect for unauthorized modifications to pedal (i.e., extensions or other devices attached to pedal).		Pedal built up with extender or block(s), or not of OEM design.
<b>c. Engine Shutdown</b> 1) Only O.E.M. approved ignition controlled shutdown acceptable on all vehicles.		Not OEM or OEM approved.
2) Check for free operation of shutdown over full range with minimum effort (if equipped with manual type shutdown on diesel buses.).	Cable is sticking or hard to operate.	Engine can be started, in shut down position, or it does not stop engine.
<b>d. Fast Idle Switch</b> 1) Check operation of switch.	Switch On does not engage.	Switch Off does not disengage fast idle.

<b>A. INSIDE</b> <b>7. Gauges, Indicators &amp; Dash Lights, Engine Warning Lights, and Buzzers</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>a. Gauges:</b> <b>Check from driver's position the visibility, OEM location, readability, operation, accuracy, and condition of the following gauges and warnings:</b>		
1) Speedometer and odometer	Odometer doesn't work or is not working properly - Odometer is unreadable.	Speedometer is known not to work or is confirmed to be inaccurate - Speedometer is unreadable or damaged.
2) Oil pressure. 3) Temperature. 4) Fuel. 5) Voltmeter or ammeter.	Oil pressure, temperature, fuel, voltmeter or ammeter gauge are inaccurate, damaged or difficult to read.	Oil or temperature gauge does not function or is unreadable. Oil pressure gauge or tube leaks.
6) Air pressure or vacuum.		Air pressure or vacuum gauge(s) are known to be inaccurate, are unreadable or not working.
7) Tachometer (if equipped).	Inoperative	
8) Hourmeter (if equipped).	Inoperative	



<b>A. INSIDE</b> <b>7. Gauges, Indicators &amp; Dash Lights, Engine Warning Lights, and Buzzers (continued)</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>b. Indicators, Dash Lights:</b> <b>Check for presence and operation of the following indicators:</b>	<b>Light bulb for the following gauge or indicators is inoperative:</b>	<b>Light bulb for the following gauge or indicators is inoperative:</b>
1) Low air pressure or vacuum warning light and or buzzer.		Low air pressure or vacuum.
2) High beam indicator light.	High beam indicator.	
3) Left and right turn signal and 4-way hazard.	Left or right turn signal or 4-way hazard.	
4) Check all dash and control panel lights for illumination at gauges and switches.	Oil pressure Temperature Fuel Voltmeter Ammeter Shift Indicator light is inoperative.  One or more lights for control switches are inoperative.  One or more panel lights is inoperative.  All dash or control panel lights are inoperative.  Speedometer lights are inoperative.  <b>(Continued on Next Page)</b>	

<b>A. INSIDE</b> <b>7. Gauges, Indicators &amp; Dash Lights, Engine Warning Lights, and Buzzers (continued)</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>c. Engine Warning Lights and Buzzer:</b> <b>Check for presence and operation of the following warning lights all diesel buses and buzzer on 1990 and later.</b>		
1) High coolant temperature dash warning light and buzzer.	High water temperature dash warning light or buzzer is inoperative.	
2) Low oil pressure dash warning light and buzzer.	Low oil pressure dash warning light or buzzer is inoperative.	
<b>A. INSIDE</b> <b>8. Air Brake System:</b>	<b>NOTE: If vehicle is equipped with Anti-Lock Braking System, refer to appropriate manufacturer's service manual for inspection criteria.</b>	
<b>a. Gauge(s):</b> 1) For vehicles equipped with air brakes check for presence of two (2) air pressure gauges (or single gauge with dual needles). One (1) gauge or needle should indicate air pressure available to the primary and one (1) to the secondary brake system.		Any gauge is missing or cannot be read. Gauge is not accurate. Any gauge is not in OEM location. More than a 15 psi difference in dual air brake system (dual gauges).
<b>b. Park Brake:</b> <b>Check for proper operation and adjustment of park brake as follows:</b> 1) With vehicle stopped, apply park brake. When engine torque is applied by placing transmission selector in "Drive" and "Reverse" (automatic transmission) and accelerating the engine to a fast idle (approximately 1,200 RPM), vehicle should not move.	<b>(Continued on Next Page)</b>	Vehicle moves after speeding up the engine (transmission in gear) with park brake applied.

**A. INSIDE****8. Air Brake System (continued)**

<b>Inspection Procedures:</b>	<b>Repair if:</b>	<b>Out of Service if:</b>
2) Lever / Knob	Pin or knob loose, broken or cracked.	Missing knob or lever.
3) Check PP-1 (pop-off style) emergency brake control valve. Check condition, location, mounting, and type of valve and knob. With pressure above 45 psi, apply and release valve to check operation.	Label identifying valve is missing or unreadable.	Valve not mounted securely (in original position).  Not OEM type.  Inoperative.  Leaks.
4) Check (PP-1) park brake control valve for emergency activation of valve by pumping down brakes (starting with at least 60 psi in air system) and noting air pressure at which valve "pops out".		Park brake pop-off valve fails to "pop out" between 15 to 50 psi.
<b>c. Low Air Warning: Check operation of low air warning buzzer and light.</b>		
1) With ignition key switch in run position (engine off), pump air brake pedal to drop air pressure. Low air warning buzzer and light should activate at approximately 55 - 60 psi.	Light or buzzer is inoperative.	Light or buzzer is inoperative. Light or buzzer fails to operate by 50 psi.
2) Start engine and build up air pressure. Warning buzzer and light should deactivate by 70 psi.		Continues to operate above 70 psi.
<b>(Continued on Next Page)</b>		

<b>A. INSIDE</b> <b>8. Air Brake System (continued)</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>d. Pedal</b> 1) Check air brake pedal assembly for adjustment, mounting, condition, operation, and rubber cover pad (if originally equipped). Check for presence of prohibited extender block.	Rubber cover pad is worn through or is worn smooth in any area.  Rubber cover pad is missing (if originally equipped).	Any part of pedal and assembly is damaged, loose, missing, or has been modified.  Pedal is equipped with any type of extender block.

<b>A. INSIDE</b> <b>9. Hydraulic Brakes:</b>
<b>NOTE:</b>  Since there are <b>two (2)</b> distinct types of hydraulic brake systems in use on school buses, this manual will cover each system individually. It is imperative that you know the type of system you will be inspecting to ensure that the proper inspection procedure is used. The two (2) types of systems are:  <b>a.</b> Hydraulic Power Assisted Hydraulic Brakes with Electric Pump Backup and Driveshaft Park Brake Systems  <b>b.</b> Hydraulic Power Assisted Hydraulic Brakes with Spring Set (hydraulically released) Parking Brakes (Ford Maxi brake)

<b>A. INSIDE</b>		
<b>9. Hydraulic Brakes (continued)</b>		
<b>Inspection Procedures:</b>	<b>Repair if:</b>	<b>Out of Service if:</b>
<b>a. Hydraulic Power Assisted Hydraulic Brakes with electric pump backup and driveshaft park brake system, Inspect for: (continued)</b> 6) Check Parking Brake: With vehicle stopped (engine running), apply park brake. When engine torque is applied by partially engaging clutch in second gear and reverse (manual transmission) or by placing transmission selector in "Drive" and "Reverse" (automatic transmission) and accelerating the engine to a fast idle (approximately 1,200 R.P.M.), vehicle should not move.	Adjustment is needed, (lever type with adjustment knob on it) do so now.	Emergency brake control is hard to operate or doesn't latch and release properly.  Park brake doesn't hold or functions improperly
<b>b. Hydraulic Power Assisted Hydraulic Brakes with Spring Set (Hydraulically released). Parking Brakes (Ford Maxi brake); Inspect for:</b> 1) Any visible leaks in the brake or power assist system.		Any leaks are found in either system.
2) Check brake warning and backup system using Chart 3.		The brake systems do not pass all tests in Chart 3.
3) Check brake pedal travel: Push brake pedal down as far as possible.		Brake pedal travels more than half way down.
4) Check for brake pedal fade. Pedal falls away to floor when held down (with engine running and with engine off), indicating brake system leaks.		There is any brake pedal fade.
<b>(Continued on Next Page)</b>		

<b>A. INSIDE</b>		
<b>9. Hydraulic Brakes (continued)</b>		
<b>Inspection Procedures:</b>	<b>Repair if:</b>	<b>Out of Service if:</b>
<b>a. Hydraulic Power Assisted Hydraulic Brakes with electric pump backup and driveshaft park brake system, Inspect for:</b> 1) Any visible leaks in the brake or hydraulic assist system.		Any leaks are found in the brake or hydraulic assist system.
2) Check brake warning and backup systems using the appropriate chassis manufacturer's procedure in Chart.		The brake system does not pass entire test in appropriate chart.
3) Check brake pedal reserve (distance from floor) upon one (1) firm brake application (engine off, hydraulic boost depleted).		Brake pedal (reserve) is less than one (1) inch from floor.
4) Check brake pedal fade (continues to fall to floor after initial firm application) with engine off.		There is any brake pedal fade (falling away) after initial firm application.
5) Check all brake hardware components inside bus for secure mounting, routing, and condition, including: a) Pushrod and clevis assembly. b) Brake pedal assembly and rubber cover pad (if originally equipped). c) Emergency brake control assembly.	Rubber cover pad is worn through or worn smooth in any area.  Rubber pedal cover pad is missing (if originally equipped) or worn out.	Brake pedal assembly, pushrod, and clevis, or emergency brake control assembly is insecurely mounted, has loose, missing, or worn hardware, or is damaged.  Pedal is equipped with any type of "extender block".  Emergency brake control is hard to operate or doesn't latch and release properly.
<b>(Continued on Next Page)</b>		

<b>A. INSIDE</b> <b>9. Hydraulic Brakes (continued)</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>b. Hydraulic Power Assisted Hydraulic Brakes with Spring Set (Hydraulically released). Parking Brakes (Ford Maxi brake); Inspect for: (continued)</b>		
5) Check Parking Brake System: a) With engine running, release the parking brake.  b) Check to be sure brakes are released (bus will move).  c) Turn engine off.  d) System must maintain pressure (keep parking brake released) for at least five (5) minutes.  e) With vehicle stopped (engine running), apply park brake. When engine torque is applied by partially engaging clutch in second gear and reverse (manual transmission) or by placing transmission selector in "Drive" and "Reverse" (automatic transmission) an accelerating the engine to a fast idle (approximately 1,200 RPM), vehicle should not move.	<p><b>(Continued on Next Page)</b></p>	<p>Parking brake system will not hold pressure (i.e., release brakes) for at least five (5) minutes.</p> <p>Vehicle will move with park brakes applied.</p>

<b>A. INSIDE</b>		
<b>9. Hydraulic Brakes (continued)</b>		
<b>Inspection Procedures:</b>	<b>Repair if:</b>	<b>Out of Service if:</b>
<b>b. Hydraulic Power Assisted Hydraulic Brakes with Spring Set (Hydraulically released). Parking Brakes (Ford Maxi brake); Inspect for: (continued)</b> 6) Check all brake hardware and components inside the bus for secure mounting, routing, and condition, including: a) Brake pedal assembly and rubber cover pad (if originally equipped). b) Brake pedal pushrod and clevis assembly. c) Emergency brake control assembly.	Brake pedal rubber cover pad is loose, missing or worn through or worn smooth in any area.	Pedal is equipped with any “extender block”.  Brake pedal assembly, pushrod, and clevis, or emergency brake control assembly is insecurely mounted, has loose, missing, or worn hardware, or is damaged.



## Hydraulic Brake System Functions

CHART 1 - WARNING LIGHTS/BUZZER			
FORD			
Normal Operation			
MODE	Indicator		
	Brake Lamp	Brk. Elec. Mtr. Lamp	Buzzer
1a. Engine Off/Ignition Off no brake applied	Off	Off	Off
1b. Engine Off/Ignition Off brake applied	Off	On	On
2. Engine Off/Ignition On or START with or without brake applied	On	On	On
3. Engine On with or without brake applied	Off	Off	Off
GMC			
1. Engine off-ignition off A. No brake applied B. Brake apply	Off On	Off Off	Off Off
2. Engine off-ignition on with or without brake applied (bulb check).	On	On	On
3. Engine off-ignition on start with or w/out brake applied.	On	Off	On
4. Engine on with or without brake applied.	Off	Off	Off

CHART 2 - BRAKE FAILURE WARNING SYSTEM CHECKS	
NAVISTAR	
CONDITION	NORMAL OPERATION
PARK BRAKE LIGHT	
Key switch in START position w/park brake released - (Bulb check).	Light <b>ON</b>
Key switch ON w/park brake applied.	Light <b>ON</b>
BRAKE PRESSURE LIGHT	
Key switch OFF.	Light <b>OFF</b> , Electric hydraulic pump operates when service brakes are applied.
Key switch in ON position. Engine not operating (pump and bulb check).	Light <b>ON</b> And electric hydraulic pump operation (some vehicles) SEE NAVISTAR MANUAL
	Light <b>ON</b> And electric hydraulic pump operates when service brakes are applied.
Key switch in ON position and Engine operating with service brakes applied.	Light <b>OFF</b>
Key switch in START position.	Light <b>ON</b> Momentarily and electric hydraulic pump operates.
Key switch in ON position and engine operating with service brakes applied.	Light <b>OFF</b>

## Hydraulic Brake System Functions (continued)

CHART 3 - NORMAL BRAKE SYSTEM CONDITIONS																				
FORD																				
Controls											Indicators									
Engine		Ignition			Service Brake		Parking Brake				Service Brake		Electric* Pump				Parking Brake			
							Off		On				Light		Light		Buzzer		Light	
Off	On	Off	On	Start	Off	On	Part Rel	Full Rel	Part Set	Full Set	Off	On	Off	On	Off	On	Off	On	Off	On
X		X			X			X	OR	X	X		X		X		X		X	
X		X				X		X	OR	X	X			X		X	X		X	
X				X	X or X					X		X				X		X		X
	X		X		X or X					X	X		X		X			X	X	
	X		X		X or X		X				X		X		X			X	X	
	X		X		X or X			X			X		X		X		X		X	
	X		X		X or X				X		X		X		X		X			X
	X		X		X or X					X	X		X		X				X	

\* Whenever the ignition switch is in the START position, the Hydro-Max electric pump will cycle momentarily.

\*\*Parking brake buzzer will sound momentarily during application of the parking brake in cold ambient conditions.

<b>A. INSIDE</b> <b>10. Windshield Wipers &amp; Washers</b>		
<b>Inspection Procedures:</b>	<b>Repair if:</b>	<b>Out of Service if:</b>
<b>a. Operation: Inspect both wipers for:</b> 1) Swept area field of view.	Wiper goes past perimeter of glass.	Either wiper does not effectively clear driver's field of vision.
2) Proper operation of both wipers on high and low speeds and condition and mounting of switch(es) and knob(s).	Either wiper does not operate on low speed. - Switch(es) mounting loose or knob(s) loose.  Knob(s) missing	Either wiper does not operate properly at high speed.
3) Condition and mounting of wiper motor and linkage.	Either wiper motor or linkage is visibly damaged or loose.	
4) Inspect for proper washer operation.	Washer does not operate or is improperly adjusted or out of fluid.	
<b>b. Park:</b> 1) Inspect for parked position of wipers when turned off.	Either wiper does not automatically return to parked position out of driver's line of sight when turned off.	
<b>c. Blades:</b> 1) Inspect blades for condition, mounting, and tension.	Either blade is damaged or deteriorated.	Either blade is loose or does not hold proper tension against windshield.

**A. INSIDE****11. Heaters, Defrosters, Aux. Fan(s)****Inspection Procedures:****Repair if:****Out of Service if:****a. Heaters Inspect heater system for:**

1) Heating performance and water control valve (interior).

Not producing adequate heat. Water control valve hard to operate.

2) Blower operation, condition, and control switches.

Heater blowers do not work on any speeds, are noisy, or vibrate.

Blower switches are damaged, loose, or blower operates intermittently.

3) System / hose leakage, condition, and hose shielding (shielding required for exposed hoses on interior of all buses).

Heater cores, hoses, or valves have visible leakage. Heater hoses are cracked, swollen or badly chafed - Shielding is missing or does not completely cover hoses.

4) Condition of ductwork and heater box.

Heater ductwork or heater box components are missing, damaged, loose, or obstructed

Any portion of heating system within passenger area creates sharp edges, projections, or other hazards to passengers or driver.

**b. Defrosters****Inspect windshield defroster system for:**

1) Airflow, heat, and coverage area.

Airflow is not present at all defroster outlets.

2) Blower operation, condition, and control switches.

Any defroster blower does not work on low speed, is noisy, or vibrates. Blower switches are damaged or loose.

Any defroster blower does not work on high or low speed.

3) Condition of ductwork, diffusers, and fresh air control (if equipped).

Any ductwork or diffusers are loose or damaged.  
Fresh air control (if equipped) does not function.

**(Continued on Next Page)**

<b>A. INSIDE</b> <b>11. Heaters, Defrosters, Aux. Fan(s)</b> <b>(continued)</b>		
<b>Inspection Procedures:</b>	<b>Repair if:</b>	<b>Out of Service if:</b>
<b>C. Driver Auxiliary Fan(s) Inspect auxiliary fan(s) for:</b> 1) Presence of fan, mounting and condition.	Fan is not present. Fan mounting is loose or fan won't stay in adjustment.	
2) Blade condition.	Fan blade is damaged.	
3) Protective cage mounting and condition.	Protective cage is loose or damaged	Protective cage is missing.
4) Operation and switch.	Fan does not operate, one (1) speed does not function, fan is noisy or vibrates. Switch is loose or damaged.	
<b>A. INSIDE</b> <b>12. Dome and Stepwell Lights</b>		
<b>a. Operation and condition:</b> 1) Check dome and stepwell lights for condition and operation.	Any lens is cracked, broken, or dirty.  Any dome light is out.  Stepwell light is on when door is closed.  Switch mounting is loose, or knob is missing. Lens broken so that light or fixture is exposed.  Dome lights are not functioning or 50% or more lights are out.  Stepwell light is not functioning.  Stepwell light does not activate when headlights are on and door is open.	

<b>A. INSIDE</b> <b>13. Service Door</b>		
<b>Inspection Procedures:</b>	<b>Repair if:</b>	<b>Out of Service if:</b>
<b>a. Operation</b> 1) Check service door assembly for operation, adjustment, condition, mounting, and fit.	Door does not seal properly or seals are damaged, ripped, or deteriorated.  3 to 6 inch line crack in glass  Glass has been replaced with Plexiglas, is broken, or has a line crack more than 6 inches.	Door jams, binds, or is difficult to close or open.  Door assembly is damaged, or mounting is loose so as to affect opening/closing.  Door glass is fogged more than one (1) inch in from border, or visibility through glass is poor.  Door is equipped with any lock except factory approved system.  Door seals are not present.  Door will not open or close completely
2) Check door hinge and hinge screws.	Hinge screws loose.	Hinge or pin condition interfering with operation of door.
<b>b. Control</b> 1) Check manual service door control and rod assembly for over-center or latching device, condition, mounting, and operation.	Control, rod hardware, or mounting is loose.  Door control doesn't operate freely.  <b>(Continued on Next Page)</b>	Manual control will not lock over-center, or latching mechanism is inoperative.  Door control requires excessive force to operate.

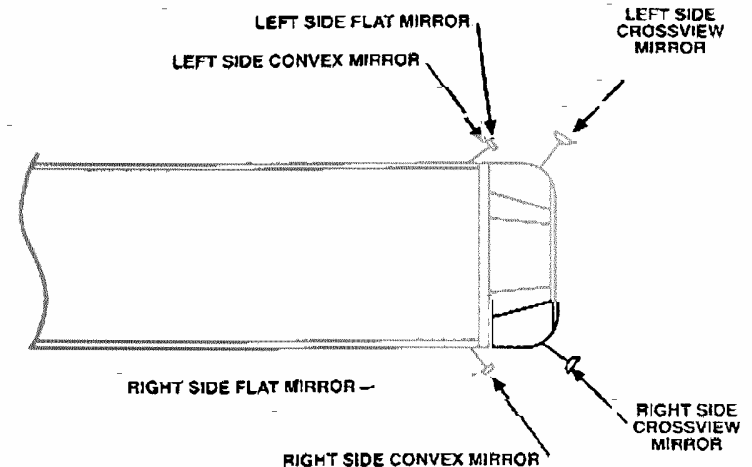
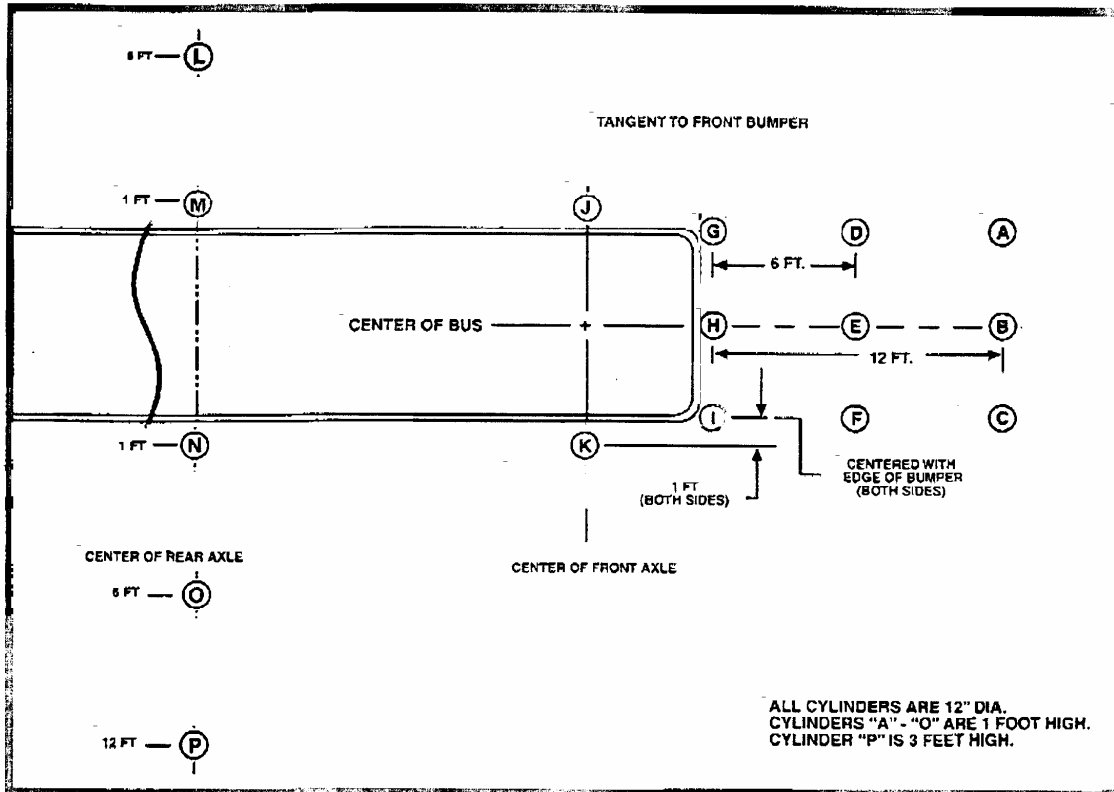
<b>A. INSIDE</b> <b>13. Service Door (continued)</b>		
<b>Inspection Procedures:</b>	<b>Repair if:</b>	<b>Out of Service if:</b>
<b>b. Control (Continued)</b> 2) Check air powered service door control assembly for leaks, operation, insecure door in closed position, and emergency release.	Air powered system leaks.	Air door emergency release does not function, or control is broken.  Air door does not function properly, or at all.
<b>c. Overhead Pad</b> 1) Check bus for pad that is a minimum three (3) inches wide, high density foam rubber padded safety cushion, mounted directly above the inside of the service door.	Pad is loose, or cover is torn.	Pad is missing or wood is exposed.
<b>A. INSIDE</b> <b>14. Horn(s)</b>		
<b>a. Horn operation and condition</b> 1) Check for operation of horn(s) and for location and condition of horn switch.	Horn button is not mounted in original OEM location.  Horn button sticks, or horn button operates intermittently such as when steering wheel is rotated.	Horn(s) does not operate at all.

<b>A. INSIDE</b> <b>15. Mirrors</b>		
<b>Inspection Procedures:</b>	<b>Repair if:</b>	<b>Out of Service if:</b>
<b>a. Rear-view:</b> 1) Check exterior rearview mirrors for specifications, condition, mounting, and adjustment.	Any exterior rearview mirror is loose in the frame.  Any bracket is broken or mirror mounting is insecure.	Any exterior rearview mirror is broken or cracked.  Either mirror does not give driver a clear view down to lower outside edge of rear tire at ground level, on both sides to the rear.  Reflective surface is deteriorated.  Any mirror does not meet applicable specification as to type and size.
<b>b. Convex:</b> 1) Check convex crosswalk and side-view mirrors for specifications (correct type, size, and location) condition, mounting, and adjustment.	Any mirror is loose in frame.  <b>(Continued on Next Page)</b>	Required convex mirrors are not present.  Any mirror is cracked or broken.



<b>A. INSIDE</b> <b>15. Mirrors</b>		
<b>Inspection Procedures:</b>	<b>Repair if:</b>	<b>Out of Service if:</b>
<b>b. Convex: (continued)</b>	Any portion of mirror mounting system is loose or broken.	Any mirror reflective surface is deteriorated.  Mirrors do not meet specifications for bus manufacture dates as shown on chart.  Mirrors do not give driver a clear view of the area around the front of the bus.
<b>c. Interior:</b> 1) Check interior rearview mirror for size, condition and mounting.	Any portion of reflective surface is obstructed by sun visor, stickers, or other items or is deteriorated.  Mirror mounting is loose.	Mirror does not meet minimum size/design requirements.  Mirror does not have rounded corners and protected edges.  Driver's view of images in mirror is not clear due to distortion or other causes.

## FMVSS.111 MIRROR ADJUSTMENT



**REAR VIEW MIRRORS (SYSTEM A)** Used together, the left side flat mirror and the left side convex mirror must provide a view of cylinder "M" and, continuing from there, 200 feet rearward of the mirror surface. Used together, the right side flat mirror and the right side convex mirror must provide a view of cylinder "N" and, continuing from there, 200 feet rearward of the mirror surface.

**CROSSVIEW MIRRORS (SYSTEM B)** Any cylinders "A-P" can be viewed using either of the crossview mirrors, but all must be visible. Only those cylinders that the driver can view by direct vision and are forward of the front bumper may be excluded.

<b>A. INSIDE</b> <b>16. Steering</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>a. Play: Check for play in the steering system, at the steering wheel, using the following procedures:</b> 1) Visual check - from inside bus with engine running, rotate steering wheel lightly from side to side until the turning motion can be observed at tires and note free play (lash) at steering wheel outer diameter. This procedure must be performed with the vehicle on the ground.		Free play (lash) exceeds amounts specified in Chart.
2) To check power assist operation run engine at fast idle and turn steering wheel a full right and left turn and feel for binding, jamming, or belt slippage.		Power assist is inadequate, or there is binding, jamming, or belt slippage.
3) Visually check condition of steering wheel.	Steering wheel plastic is cracked.	Steering wheel is loose on column.  Steering wheel is non-OEM design.  Plastic is missing so that metal steering wheel reinforcement is exposed.  Any portion of the metal steering wheel components are cracked or broken.
<b>b. Column:</b> 1) Check steering column inside bus for up and down play (parallel to shaft), side to side play (perpendicular to shaft), and for proper mounting.	Rubber boot at bulkhead (if equipped) is torn, or ripped, or missing.	Side to side play in steering column exceeds 1/4 inch or up and down play exceeds 1 inch.  Column assembly mounting (including floor mounting plate) or fasteners are loose.
2) Check operation of tilt and telescoping functions (if equipped).	Does not tilt or telescope.	Does not latch securely in place.

# CHART

## STEERING WHEEL PLAY (LASH) MEASUREMENTS

Lash shall not exceed the following measurements.

<b>Steering Wheel Size</b>	<b>Play (Lash) Manual Steering</b>	<b>Play (Lash) Power Steering</b>
16 inches or less	2 inches	4 1/2 inches
18 inches	2 1/4 inches	4 3/4 inches
20 inches	2 1/2 inches	5 1/4 inches
22 inches	2 3/4 inches	5 3/4 inches

<b>A. INSIDE</b> <b>17. Driver's Seat and Belt</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>a. Seat and Belt</b> 1) Check driver's seat and belt for specifications (type and adjustability), condition, mounting, and operation.	Seat adjustment binds or is difficult to operate.  Seat adjustment is loose or adjustment hardware is missing.  Seat upholstery or foam is deteriorated or damaged.  Seat upholstery is wrong type (vinyl/cloth).  Seat bottom is loose in frame or mispositioned.  Seat belt retractor covers or belt covers are damaged or loose.	Driver's seat will not adjust as designed.  Seat mounting is unstable, loose at floor, or seat mounting hardware is missing.  Driver's seat belt is missing or not an approved type.  Seat frame is exposed due to deterioration of upholstery or foam.  Mounting of retractors or belt guides is not secure.  Seat belt webbing or stitching is frayed or damaged.  Seat belt is routed improperly.  Seat belt does not extend or retract freely.  Seat belt buckle and tongue assembly does not latch or release properly.  Non-OEM extenders have been added to belt or belt mounting.

<b>A. INSIDE</b> <b>18. Passenger Seats</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>a. Frames:</b> 1) Inspect passenger seat frames for condition of welds, tubing, and hardware.		Seat frames or welds are broken or cracked.  Any seat back frame is repaired using non-OEM hardware.  Any seat frame hardware has been added or modified to result in projections or sharp edges
2) Check for presence of non-O.E.M. seat frames.		There are any non-OEM seat frames installed.
3) Check for presence and condition of passenger restraining belts on Special Needs buses and Type "A" buses.		Restraining belts are non-functional.
<b>b. Mounting:</b> 1) Inspect condition of passenger seat mounting.	Seat mounting at floor or seat rail is loose.  <b>(Continued on Next Page)</b>	

<b>A. INSIDE</b> <b>18. Passenger Seats (continued)</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>c. Pads/Safety Barriers:</b> 1) Inspect seat back/barrier foam for specifications and condition.		Foam envelope is split, delaminated, or there is no padding between any portion of seat back frame and covering.  Any bus does not have a padded safety barrier in front of any passenger seat that does not have another seat in front of it.
<b>d. Cuts/Upholstery Damage.</b> 1) Inspect seat and safety barrier upholstery for condition and specifications.	Seat upholstery is cut, torn, or ripped.  Seat upholstery is not repaired properly.   <b>(Continued on Next Page)</b>	Seat upholstery is missing.

<b>A. INSIDE</b> <b>18. Passenger Seats (continued)</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>e. Bottoms</b> 1) Inspect seat bottoms for securement and condition.	Any seat bottom is not securely anchored to seat frame.	Any seat bottom padding or cushion has significant deterioration or damage.  Any seat bottom has a protruding edge or plywood is broken.
<b>f. Modesty Panels and Stanchions:</b> 1) Inspect modesty panels and stanchions for condition, specifications, mounting, and padding (as required).	Stanchion or modesty panel mounting is loose (Special Needs buses).  Stanchion padding is missing or is damaged so that metal is exposed.	
<b>g. Optional Infant/Toddler Seating:</b> 1) Check condition and operation of system.		Seat does not operate or function properly according to manufacturer's operational procedures.
<b>h. Flip-Up Seats:</b> 1) Check condition and operation of flip-up seats.	Seat does not automatically return to an upright position when not in use.	Any sharp edges, loose or protruding hardware that could injure or snag passengers.  Seat or hardware malfunction that could trap arm or leg between seat or back.



<b>A. INSIDE</b> <b>19. Emergency Door/Windows/Hatches</b>		
<b>Inspection Procedures:</b>	<b>Repair if:</b>	<b>Out of Service if:</b>
<b>a. Emergency Door:</b> 1) Inspect for operation and condition of emergency doors, door latch, door hold open feature (if equipped), and door seal.	Rear door opens too far, damaging lights.  Door handle, latch, or mounting hardware is loose.  Mounting of guard for inside rear door handle is loose.  Hold open device (if equipped) is non-operational, bent, damaged or loose.  Side emergency door seal damaged or does not effectively prevent water, and/or dirt from entering bus.  Cover or padding on bar over door torn or damaged and wooden base not exposed.  Emergency door exit not properly labeled.	Any emergency door latch does not operate smoothly and easily when closing or opening the door. (Latch mechanism requires more than 40 pounds of pressure to release.)  Door does not open at least 90 degrees. Inside door handle is not equipped with a guard  Any emergency door is equipped with any type of locking device.  Rear emergency door seal damaged or does not effectively prevent exhaust, water, and/or dirt from entering bus.  Padded bar over door missing or damaged to expose wood base.
<b>b. Push out windows:</b> 1) Check condition and operation of push out windows (if equipped).		Emergency window latch does not latch window securely or window does not open easily.
<b>c. Roof hatches</b> 1) Check operation of roof hatches (if equipped).	Roof hatch seal is damaged or dislodged.  Roof hatch does not open to ventilation position.	Roof hatch does not open easily to full "emergency open" position from the inside or the outside.
<b>d. Buzzers</b> 1) Check operation of buzzers for emergency doors, emergency exit windows, and roof hatches	Buzzer gives false alarms.  <b>(Continued on Next Page)</b>	Buzzer system for any emergency door, exit window, or any roof hatch does not function or is not audible at driver's location.

<b>A. INSIDE</b> <b>19. Emergency Door/Windows/Hatches</b> <b>(continued)</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>e. Labeling and Pad</b> 1) Inspect for label and opening instructions for emergency door, emergency windows, and emergency exit/ventilator (roof hatch).	Any emergency exit does not have legible instructions for operation on the inside of the exit.  Emergency exits are not clearly labeled inside the bus as "Emergency Door" or "Emergency Exit".	
2) Inspect emergency door header pad.	Pad is loose or cover is torn.	Pad is missing or wood is exposed
<b>A. INSIDE</b> <b>20. Windshield, Side &amp; Rear Windows</b>		
<b>a. Glass Cracks</b> 1) Inspect windshield and all windows for cracks and other damage.	<p>(Continued on Next Page)</p>	There are any cracks in the windshield in the driver's direct field of vision (area swept by wiper) greater than six (6) inches in length or any star cracks greater than two (2) inches in diameter.  There is any crack in the windshield or any window, greater than twelve (12) inches in length.  There is any glass missing.  There is any laminated windshield or laminated window glass broken or splintered, which might cause injury when touched.  There is any window to the side of the driver or behind the driver's location, which is not laminated or tempered safety glass.  There is any crack in non-laminated safety glass.

<b>A. INSIDE</b> <b>20. Windshield, Side &amp; Rear Windows</b> <b>(continued)</b>		
<b>Inspection Procedures:</b>	<b>Repair if:</b>	<b>Out of Service if:</b>
<b>b. Visibility/Fogging:</b> 1) Check windshield and windows for fogging, reduced visibility, or improper level of tinting.	Glass fogging around edges, but less than two (2) inches.	The windshield or any window is fogged more than two (2) inches in from the outer border.  Any windshield or window fogging or clouding results in reduced visibility of a mirror.  There is any reduced visibility through the windshield or any windows.
2) Check windshield and windows for objects or signs obstructing driver's vision.	There is tinting on the windshield or windows to the side of the driver, which is not 70% light transmission or clearer.  There is tinting on any windows behind the driver's location, which is not at least 28% light transmission or clearer.	Any object obstructing or interfering with drivers vision to the front, sides, or rear.  Any sign or placard placed or mounted in or on any glass except the following approved locations.  Left Side – First window behind driver's window, lower glass. Right Side – Second window behind service door lower glass. Rear – Right rear glass lower half.
<b>c. Latches and Window Operation</b> 1) Check latches and windows for condition and operation.	Latches are broken.  Latches are hard to operate, or any window does not move up and down freely.  Windows do not stay closed.  <b>(Continued on Next Page)</b>	There is any loose or damaged window hardware protruding into the passenger compartment.

<b>A. INSIDE</b> <b>20. Windshield, Side &amp; Rear Windows</b> <b>(continued)</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>d. Visor</b> 1) Check driver's sun visor for condition and operation.	Driver's sun visor is clouded, dirty or has unauthorized stickers.  Driver's sun visor cannot be adjusted or will not stay in position.  Driver's sun visor is cracked, broken or damaged.  Sun visor is missing.	



<b>A. INSIDE</b> <b>22. General Condition, Interior (continued)</b>		
<b>Inspection Procedures:</b>	<b>Repair if:</b>	<b>Out of Service if:</b>
<b>b. Paneling</b> 1) Check all interior sidewall, rear, ceiling, and driver's area paneling for secure fastening, projections or sharp edges, and condition.	<p>There is graffiti or unauthorized stickers on interior panels. (if on buses advise district)</p> <p>There are loose or missing attachment screws on any maintenance access panel.</p> <p>Interior paneling is severely mildewed, or paint (where required) is missing or damaged.</p>	<p>Interior paneling has any projections or sharp edges.</p> <p>Any Missing Panels.</p>
<b>c. Trash Cans/Brooms</b> 1. Check to see that approved trash cans are present in all buses and are properly secured.  2. Check to see that brooms (if present) are properly secured in approved locations.	<p>Trash can is damaged or missing.</p> <p>Trash can is not properly secured.</p> <p>Broom securement clips are loose.</p> <p>Broom is not properly secured.</p>	
<b>d. Dog House/Engine Cover, if equipped</b> 1) Inspect dog house/engine cover for seals, soundproofing, weather stripping, prop-rod and latch operation.	<p>Soundproofing is not present or deteriorated.</p> <p>Prop-rod does not support dog house/engine cover safely.</p> <p>Latch is hard to operate or does not secure dog house/engine cover properly.</p>	<p>Seals or weather stripping allow air/fume leaks into driver's compartment.</p>
<b>e. Cleanliness:</b> 1) Inspect interior for cleanliness.	<p>Bus is dirty. <u>Advise district.</u></p>	<p>Bus is dirty and unsafe to operate. <u>Advise district.</u></p>

<b>A. INSIDE</b> <b>22. General Condition, Interior (continued)</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>f. Loose Objects</b> 1) Check to see that all objects within the bus are secured.	Loose objects are present and are not properly secured.  Any aerosol cans or other containers of flammable, hazardous, or volatile chemicals or liquids are on the bus.	
<b>A. INSIDE</b> <b>23. Wheelchair Lift, Door &amp; Securement System</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>a. Wheelchair Lift, Door, and Securement System:</b> 1) Operate lift through complete cycle and inspect for proper operation, condition, safety features, manual backup system, fluid leaks, mounting, barrier operation, warning light, buzzer operation, and overall mechanical condition.	Dome light at inside lift area is inoperative.  Lift door or latch does not operate smoothly.  Evidence of fluid leaks.  White light at exterior lift area (if equipped) is inoperative.  Lift control cable or wiring is damaged or routed improperly.  <b>(Continued on Next Page)</b>	Lift platform end barrier or handrail (if equipped) does not raise and lower reliably to the proper position. Barrier does not lock in position, or is damaged.  Lift does not fold, unfold, raise and lower properly, or jerks and binds.  Lift is not mounted securely to the vehicle.  There is excessive side play in the lift mechanism when the platform is partially or fully extended.  Door switch (to prevent lift operation when the lift door is closed), or other safety override features do not function. (2004 and Later)

<b>A. INSIDE</b> <b>24. Wheelchair Lift, Door &amp; Securement System (continued)</b>		
Inspection Procedures:	Repair if:	Out of Service if:
<b>a. Wheelchair Lift, Door, and Securement System: (continued)</b>		<p>Any part of the lift mechanism or hardware is damaged, missing, or not secure including cams, clips, pins, rollers, and platform fasteners.</p> <p>Manual backup system does not function properly.</p>
2) Buzzer: Operation according to specifications	Lift door warning buzzer or light does not operate according to specifications.	.
3) Inspect wheelchair and occupant securement (tie-down) system for condition, mounting, proper type, and location.	Track is filled with dirt.	<p>Wheelchair tie down track or fasteners are loose, broken, or damaged.</p> <p>Wheelchair or occupant securement straps are broken, frayed, or will not operate.</p>

**End of Section**